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Docket No.: 8733.400.00-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Hong-Sung Song

Customer No.: 30827

Application No.: 09/785,423

Confirmation No.: 1942

Filed: February 20, 2001

Art Unit: 3728

For: TAPE CARRIER PACKAGE FILM

Examiner: J. M. Mohandesi

**APPELLANT'S BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to a Final Rejection of all pending claims that was mailed on January 30, 2004 and in support of a "Notice of Appeal" filed on April 30, 2004, Appellant hereby submits this Appeal Brief.

The fees required under § 1.17(f) and any required petition for extension of time for filing this brief and fees therefore are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief is transmitted in triplicate.

This brief contains items under the following headings as required by 37 C.F.R. § 1.192 and M.P.E.P. § 1206:

- I. Real Party In Interest
- II Related Appeals and Interferences

- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Invention
- VI. Issues
- VII. Grouping of Claims
- VIII. Arguments
- IX. Claims Involved in the Appeal
- Appendix A Claims

**I. REAL PARTY IN INTEREST**

The real party in interest for this appeal is: LG.Philips LCD Co., Ltd.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

**A. Total Number of Claims in the Application**

There are 17 claims pending in the application.

**B. Current Status of Claims**

C. Claims canceled: N/A

D. Claims withdrawn from consideration but not canceled: N/A

E. Claims allowed: N/A

F. Claims rejected: 1-17

G. Claims on Appeal: The claims on appeal are claims 1-17.

#### **IV. STATUS OF AMENDMENTS**

The Examiner issued a Non-Final Rejection on July 3, 2002 in which the Examiner rejected claims 1-17. Appellant filed an Amendment on October 3, 2002. Claims 1-3 and 5 were amended. The Examiner issued a Final Rejection on December 18, 2002 rejecting claims 1-17. Appellant filed a Response Under 37 C.F.R. 1.116 on March 17, 2003. No claims were amended. The Examiner issued an Advisory Action on March 26, 2003 maintaining the rejection of claims 1-17. Appellant filed a Request for Continuing Examination on May 19, 2003. Appellant filed an Amendment After RCE on June 12, 2003. Claims 1, 2, 5, and 7 were amended. The Examiner issued a Non-Final Rejection on September 11, 2003 rejecting claims 1-17. Appellant filed an Amendment on December 10, 2003. Claims 1-5 and 7 were amended. The Examiner issued a Final Rejection on January 30, 2004. Appellant filed a Notice of Appeal on April 30, 2004.

Accordingly, the claims enclosed herein as Appendix A reflect claims 1-17 as amended.

#### **V. SUMMARY OF INVENTION**

The present invention relates to a tape carrier package (TCP) film used for fabricating a liquid crystal display. More particularly, the present invention relates to a TCP film having an enhanced mounting efficiency.

It is an objective of the present invention to provide a TCP film that enables easy and rapid punching of the TCP part.

## **VI. ISSUES**

The issue is whether the Examiner properly rejected claims 1-17 under 35 U.S.C. § 103(a) as being unpatentable over Honda (U.S. Patent No. 4,702,370) in view of Hashimoto (U.S. Patent No. 6,297,964).

## **VII. GROUPING OF CLAIMS**

For purposes of this appeal brief only, and without conceding the teachings of any prior art reference, the claims have been grouped as indicated below:

Group/Claim(s)

A. Independent claim 1 and its dependent claims 2-4 and independent claim 5 and dependent claims 6-17.

In Section VIII below, Appellant has included arguments supporting the separate patentability of each claim group as required by M.P.E.P. § 1206.

## **VIII. ARGUMENTS**

The issue is whether the Examiner properly rejected claims 1-17 under 35 USC 103(a) as being unpatentable over Honda in view of Hashimoto.

Claim 1 is allowable over the cited reference in that claim 1 recites a combination of elements including, for example “a tape carrier package part having a mounting portion for a driving integrated circuit, wherein the tape carrier package part is defined by depressions” and “a peripheral part for securing the tape carrier package part, said peripheral part having a plurality of sprocket holes.” Claim 5 is allowable over the cited reference in that claim 5 recites a

combination of elements including, for example “a tape carrier package part on the package film defined by depressions, said tape carrier package part having a mounting portion for receiving an integrated circuit” and “a peripheral part having sprocket holes.” None of the cited references including Honda or Hashimoto, singly or in combination, teaches or suggests at least these features of the claimed invention.

The Abstract of Honda provides an overview of the invention disclosed in Honda:

An electronic components series comprises a carrier tape and a plurality of recess formed in the carrier tape at equal intervals in the longitudinal direction thereof. An electronic component to be held on the carrier tape comprises a main body and leads or terminals protruding from the main body. Each recess on the carrier tape is shaped so as to be able to store both the above-mentioned main body and leads or terminals. Accordingly, the whole of the electronic component is stored in the recess. A covering tape is bonded to the carrier tape, and accordingly the recess is sealed by the covering tape and the electronic component is held in the recess.

Honda discloses a carrier tape with recesses for holding electronic components. The Examiner equates the recess 34' of Honda with the depressions of the claims. In the claims, depressions in the package film define the border of the tape carrier package part. An example of these depressions are perforations in the package film. In Honda, the recess, which the Examiner identifies as the depressions, is a single entity as opposed to the depressions along the border of the tape carrier package part.

Further, the tape carrier package of the present invention has a tape carrier package part and a peripheral part. In the rejection the examiner does not identify specifically which elements of Honda correspond to the tape carrier package part and the peripheral part. The Examiners implication is that the carrier tape 30 with the sprocket holes 36 is the peripheral portion. There is nothing though that would be the tape carrier package part having a mounting portion for a

driving integrated circuit. In Honda, electronic components are placed in the recess 34 and held by the leads of the electronic component 20' in the lead storing part 34b. (See Honda, col. 3, ll. 23-26.) The recess 34 has already been identified by the Examiner as the depressions. Further in claim 1, the plurality of punching holes are formed by cutting a part of the tape carrier package part and a part of the peripheral part. The Examiner identifies the lead storing part 34b as the punching holes. The lead storing part 34b is formed when the recess 34 is formed, so it is not formed by cutting a part of the tape carrier package part and a part of the peripheral part. In claim 5, the plurality of punching holes are to assist in the separation of the tape carrier package from the peripheral part. As noted above, there is no tape carrier package part to separate from the peripheral part.

In order to establish a *prima facie* case of obviousness, the prior art reference or references must teach or suggest all of the claim limitations. (See MPEP 2143.) As discussed above neither Honda or Hashimoto, singly or in combination teach all of the features of the claims. As such, Appellants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness with regard to claims 1 and 5, and therefore, the rejection should be withdrawn.


Claims 2-4 and 6-17 stand or fall together with claims 1 and 5, as they are dependent from independent claims 1 and 5. Claims 2-4 and 6-17 are also allowable by virtue of their dependence on claims 1 and 5, which are believed to be allowable.

**IX. IX. CLAIMS INVOLVED IN THE APPEAL**

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

Dated: July 29, 2004

Respectfully submitted,

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## **APPENDIX A**

### **Claims Involved in the Appeal of Application Serial No. 09/785,423**

1. A tape carrier package film for a liquid crystal display, comprising:  
a tape carrier package part having a mounting portion for a driving integrated circuit,  
wherein the tape carrier package part is defined by depressions;  
a peripheral part for securing the tape carrier package part, said peripheral part having a plurality of sprocket holes; and  
a plurality of punching holes formed by cutting a part of the tape carrier package part and a part of the peripheral part for reducing a connection between the tape carrier package part and the peripheral part.
2. The tape carrier package film as claimed in claim 1, wherein said punching holes are aligned with the depressions.
3. The tape carrier package film as claimed in claim 1, wherein one of the punching holes is one of a plurality of punching holes that are spaced apart from each other along a side of the tape carrier package part.
4. The tape carrier package film as claimed in claim 3, further including a supporter between punching holes for connecting the tape carrier package part to the peripheral part.
5. A tape carrier package film, comprising:  
a peripheral part having sprocket holes; and  
a tape carrier package part on the package film defined by depressions, said tape carrier package part having a mounting portion for receiving an integrated circuit;



wherein a plurality of punching holes are formed along a border of the tape carrier package part and the peripheral part, the punching holes assisting separation of the tape carrier package part from the peripheral part.

6. A tape carrier package film according to claim 5, wherein said punching holes are elongated.

7. A tape carrier package film according to claim 6, wherein elongation axes of said punching holes align with the depressions.

8. A tape carrier package film according to claim 7, wherein a punching hole includes a triangular shaped portion.

9. A tape carrier package film according to claim 5, wherein a plurality of punching holes are provided along a side of said tape carrier package part.

10. A tape carrier package film according to claim 9, wherein a supporter is disposed between punching holes.

11. A tape carrier package film according to claim 10, wherein said supporter supports the tape carrier package part.

12. A tape carrier package film according to claim 11, wherein the tape carrier package film is flexible.

13. A tape carrier package film according to claim 5, wherein said mounting portion mounts an integrated circuit.

14. A tape carrier package film according to claim 13, wherein said mounting portion mounts a plurality of integrated circuits.

15. A tape carrier package film according to claim 5, wherein said tape carrier package film is dimensioned to integrate with a tape assembly system.

16. A tape carrier package film according to claim 15, wherein said tape assembly system is automated.

17. A tape carrier package film according to claim 15, wherein said sprocket holes are for mechanically driving the tape carrier package film by said tape assembly system.